

Title (en)
STABILIZED PREPARATIONS FOR USE IN METERED DOSE INHALERS

Title (de)
IN DOSIERINHALATOREN VERWENDBARE, STABILISIERTE ZUBEREITUNGEN

Title (fr)
PREPARATIONS STABILISEES POUR AEROSOLS-DOSEURS

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Abstract (en)
[origin: WO9916422A1] Stabilized dispersions are provided for the delivery of a bioactive agent to the respiratory tract of a patient. The dispersions preferably comprise a plurality of perforated microstructures dispersed in a suspension medium that typically comprises a hydrofluoroalkane propellant. As density variations between the suspended particles and suspension medium are minimized and attractive forces between microstructures are attenuated, the disclosed dispersions are particularly resistant to degradation, such as, by settling or flocculation. In particularly preferred embodiments, the stabilized dispersions may be administered to the lung of a patient using a metered dose inhaler.

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Cited by
US11471468B2; US10716753B2

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DOCDB simple family (application)
US 9820615 W 19980929; AT 98950826 T 19980929; AT 98953220 T 19980929; AT 98954933 T 19980929; AU 1064499 A 19980929; AU 1185799 A 19980929; AU 9677098 A 19980929; AU 9677298 A 19980929; BG 10425300 A 20000317; BR 9812693 A 19980929; CA 2304819 A 19980929; CA 2304820 A 19980929; CA 2304973 A 19980929; CA 2304975 A 19980929; CN 98809603 A 19980929; CZ 20001115 A 19980929; DE 69813853 T 19980929; DE 69814428 T 19980929; DK 98950826 T 19980929; DK 98953220 T 19980929; EA 200000375 A 19980929; EA 200200036 A 19980929; EE P200000194 A 19980929; EP 98950824 A 19980929; EP 98950826 A 19980929; EP 98953220 A 19980929; EP 98954933 A 19980929; ES 98950826 T 19980929; ES 98953220 T 19980929; ES 98954933 T 19980929;

HK 01100524 A 20010119; HR P20000175 A 20000328; IL 13512600 A 20000316; IL 13512698 A 19980929; IS 5415 A 20000324;
JP 2000513557 A 19980929; JP 2000513558 A 19980929; JP 2000513559 A 19980929; JP 2000513560 A 19980929;
JP 2009274003 A 20091201; JP 2011058608 A 20110316; JP 2013142326 A 20130708; JP 2013145351 A 20130711;
JP 2014128936 A 20140624; KR 20007003367 A 20000329; KR 20007003368 A 20000329; KR 20007003401 A 20000329;
KR 20007003416 A 20000329; ME P4108 A 19980929; NO 20001618 A 20000328; NZ 50346498 A 19980929; PL 33973298 A 19980929;
PT 98953220 T 19980929; SK 4492000 A 19980929; TR 200000819 T 19980929; US 9820602 W 19980929; US 9820613 W 19980929;
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